

Other suitably labelled ligands may also be used.

The Ox receptor is widely distributed in brain, particularly in the pineal gland, cortex, hippocampus, brain stem and spinal cord. In the hippocampus it is found in areas
5 associated with memory, in particular the CA1-CA2 neurons i.e the pyramidal cells. In brain stem and spinal cord, the receptor is found in motor neurons and in brain stem nuclei such as the area postrema, rostroventrolateral medulla, nucleus tractus solitarius and locus coeruleus. These nuclei are associated with regulation of blood pressure. In kidney they are widely distributed in renal cortex and the outer stripe of the outer medulla, sites
10 which are involved in regulation of ion transport. In the adrenal gland they are found in the cortex and the medulla.

Accordingly in a further aspect of the present invention there is provided a method for the treatment of diseases of the central nervous system, cardiovascular system or the kidney,
15 or diseases associated with abnormal adrenal gland secretion which comprises administering an effective amount of a compound of formula I or a pharmaceutically acceptable salt or ester thereof to a subject in need thereof.

Diseases of the central nervous system include, but are not limited to, dementia, mood
20 disturbances, degenerative conditions, such as stroke or aging, ischaemia, CNS trauma and neurodegenerative diseases, such as Alzheimer's disease and Parkinson's disease.

Diseases of the cardiovascular system include, but are not limited to, hypertension and ischaemic heart disease.
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Diseases of the kidney include, but are not limited to, those diseases which affect renal tubular function.

Diseases associated with abnormal adrenal gland secretions include, but are not limited to,
30 hypertension, heart failure and oedema.

The compounds of formula I may also be useful in the treatment of other diseases or

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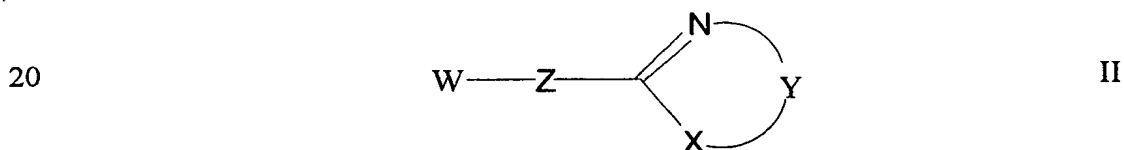
conditions including, but not limited to, hyperglycaemia, glaucoma and peptic ulcer, and may be useful in producing effects such as analgesia.

Accordingly in a further aspect of the present invention there is provided a pharmaceutical composition for the treatment of diseases of the central nervous system, the cardiovascular system or the kidney, or diseases associated with abnormal adrenal gland secretion which comprises a compound of formula (I) or a pharmaceutically acceptable ester or salt thereof together with a pharmaceutically acceptable carrier or diluent.

10 The invention also provides the use of a compound of formula I in the manufacture of a medicament for the treatment of diseases of the central nervous system, the cardiovascular system or the kidney, or diseases associated with abnormal adrenal gland secretion.

In yet another aspect of the present invention there is provided the use of a compound of formula I as an agonist or antagonist to the Ox receptor.

In a preferred embodiment the compound of formula (I) is a compound of formula II:



W is optionally substituted aryl, optionally substituted C₃-C₇ cycloalkyl or -CHR¹R² where R¹ and R² are independently selected from hydrogen, optionally substituted C₁-C₆ alkyl, optionally substituted C₃-C₇ cycloalkyl, optionally substituted aryl, and OR' where R' is optionally substituted aryl, optionally substituted C₃-C₇ cycloalkyl or optionally substituted C₁-C₆ alkyl, provided that both of R¹ and R² are not both hydrogen.

Z is -NH-, C₁-C₂ alkylene, -CH₂NH- or -CH₂CH₂NH-,

X is O or S, and